# How a Traditional Company Seeded New Analytics Capabilities[1]

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Executive Summary

Developing state-of-the art data analytics capabilities is a challenge for traditional companies with long-established processes and legacy systems. The full article describes how one such company (a Swiss electricity utility) conducted a seed project—a bottom-up initiative to develop an analytics ecosystem of business, organizational and technological capabilities. This project was an effective first step in growing the company's analytics capabilities.

Seeding Analytics Capabilities
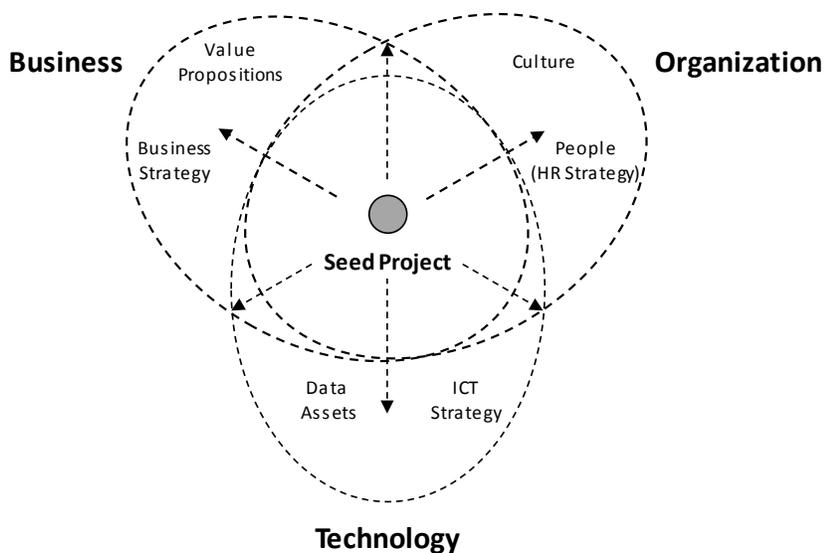
Our analysis of this seed project was based on recent work that proposes an ecosystem perspective for understanding how analytics can lead to business value. Three dimensions of the ecosystem—*business* (value propositions, business strategy), *organization* (culture, human resources) and *technology* (data assets, ICT strategy)—must be developed and aligned. Three of the analytics-adoption challenges identified in this work—a shortage of data science skills, resistance to change and lack of integrated data management—are especially pronounced in long-established companies. Inexperience and insufficient knowledge about what analytics can and cannot achieve makes it challenging for a company's leaders to develop a workable analytics strategy and vision. A useful first step, therefore, is to seed and cultivate basic analytics capabilities within the organization.

The seed project studied is described in detail in the full report, which maps the project phases to the utility's analytics ecosystem. First, the project focused on the business domain by establishing a strategic goal: to achieve immediate operational benefits from an analytics project, and to increase managers' awareness and acceptance of data analytics. Next, the organizational domain came into focus when inter-departmental communication and the engagement of additional staff helped the project team gain access to required data sources. The technology domain moved to the fore when the team selected a suitable analytics platform and began developing the

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analytics applications. In the final phase, the developed system was evaluated against the initial business requirements.

Key Lessons from the Analytics Seed Project

Three short-term challenges are particularly relevant for the success of an analytics seed project: (1) The project should reveal new sources of business value (*business* dimension of the ecosystem); (2) The project should facilitate follow-up initiatives by developing basic technological skills among staff and thereby reducing resistance to change (*organization* dimension); An analytics seed project requires access to relevant data sources (*technology* dimension). Based on these immediate challenges, the full report identifies four key lessons from the seed project studied. These lessons will help other long-established, traditional companies to successfully initiate and carry out analytics seed projects.

1. Leverage Process Focus. In companies that lack experience of implementing new types of IT applications, the potential benefits of analytics may not be evident at first, and the business case for analytics may seem too limited to attract significant buy-in. Many large, traditional companies have tried-and-tested business processes, and piggybacking an analytics seed project on accepted and well-known processes can be an effective way of developing analytics capabilities.

2. Foster Data Awareness. Discovering available data sources was a major struggle at the utility company. Even though senior managers pushed IT-related innovations, these efforts were hampered by a weak data-sharing culture. Data "blindness" is not uncommon in companies with hierarchical organizational structures, highly specialized units and limited inter-departmental collaboration—especially if managers focus on tangible inputs, processes and outputs. Given the importance of data access for a successful analytics initiative, it is absolutely essential to foster data awareness, both before and during an analytics seed project.

3. Adopt Agile Development Practices. Agile development enabled staff at the Swiss utility to learn iteratively about analytics, leading the seed project team and users of the analytics system to identify further business opportunities, and empowering users to develop applications on their own. At many large, established companies, all three dimensions (business, organization, technology) of the analytics ecosystem are underdeveloped. Frequent design iterations involving a broad audience during application development helps ensure a common standard and facilitates mutual learning across all three dimensions.

4. Move from Isolated Tools to Open Platforms. Many large well-established companies rely heavily on enterprise systems, but often they have not articulated an overarching software strategy beyond ERP. Using many individual software tools to solve many individual problems makes it difficult to take adjacent applications into consideration. However, the value of an analytics capability increases as both available data sources and applications increase. An analytics seed project should therefore reduce IT fragmentation by integrating tools and data sources via a general-purpose open platform solution. This might mean rejecting the best tool for a given task in favor of a tool with better integration potential. Unlike closed, monolithic software suites, there is an abundance of packaged modules for open platforms available from code repositories that are supported by active development communities. Making use of these modules reduces development cycle times and prototyping costs, and enables a firm to experiment with new analytics processes during a seed project and to easily integrate follow-up applications.

In summary, many large, traditional companies have found that moving toward data-driven decision making is challenging. Although their analytics capabilities may be underdeveloped, the good news is that these companies usually have complementary human and technology capabilities that can be leveraged. A seed project is an effective way of improving an organization's readiness for analytics. Unlike large, top-down initiatives, seed projects require comparatively few resources. Their small scale facilitates learning-by-doing and internal collaboration. As the seed starts to grow and new business insights are shared during project status meetings, the organization begins to reap initial business value from analytics, and lays the groundwork for an ongoing analytics transformation.